Mechanical Working Instructions

Applicable for R250s Pro

Contents

1 Disassembly 2
1.1 Process tools 2
1.2 Instructions 2
1.3 Figures 3
2 Reassembly 4
2.1 Process tools 4
2.2 Instructions 4
2.3 Figures 5
3 Replacement, Mechanical Parts 7
3.1 Front cover 7
3.2 Loudspeaker 8
3.3 Microphone/Microphone boot 9
3.4 Microphone elastomeric connector/ Microphone elastomeric support. 10
3.5 Buzzer/Buzzer boot 11
3.6 Vibrator/Vibrator boot 12
3.7 LCD light guide assembly/ Speaker contact pogo pins 13
3.8 LCD elastomeric/LCD 14
3.9 System connector 15
3.10 SIM holder/SIM card lid 16
3.11 Side snap dome connectors 17
3.12 Speakermode switch 18
3.13 Antenna/External antenna cover 19
3.14 Warranty seal 20
4 Revision History 21

1 Disassembly

1.1 Process tools

- Torque screwdriver, torx no.7 pre-set to 15 Ncm.
- Torque screwdriver, torx no.7 pre-set to 55 Ncm.
- Tweezers.

1.2 Instructions

NOTE! Keep all contact-surfaces/display clean of skin oil. Use gloves!

NOTE! Do never re-use the disassembled frame screws!

1. Remove the battery and the SIM card lid (fig 1).
2. Remove the SIM cardholder (fig 2).
3. Remove the antenna and the external antenna cover by screwing it counter clockwise.(fig 3)
4. Remove the frame screws with the torque screwdriver pre-set to 55Ncm. (fig 4).
5. Remove the front cover
6. Place a protection tape over the LCD.
7. Remove the microphone elastomeric connector (fig 5).
8. Remove the cable support (fig 6).
9. Disconnect the buzzer and the vibrator from the board (fig 7).
10. Remove the two board / battery connector screws with torque screw driver pre-set to 15Ncm. (fig 8).
11. Lift the board from the frame and place it on the ESD-safe surface

1.3 Figures

Fig 1

Fig 2

Fig 3

Fig 4

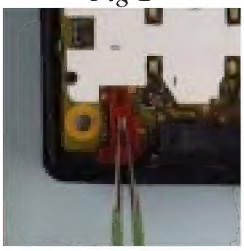

Fig 5

Fig 6

Fig 7

Fig 8

2 Reassembly

2.1 Process tools

- Torque screwdriver, torx no.7 pre-set to 15 Ncm.
- Torque screwdriver, torx no.7 pre-set to 55 Ncm.
- Tweezers.

2.2 Instructions

NOTE! Every time a telephone is opened you need to replace the microphone-elastomeric connector and the frame screws

NOTE! Do not touch the display with your hands. Use gloves.

1. Control that every contact-surfaces on the board is clean and not damaged.
2. Control that the vibrator, the buzzer and the environmental seal (fig 15) are mounted in the frame. Also check that the Gore-Tex filter (fig 1) is intact.
3. Control that the system connector (including the rubber gasket), the LCD light guides assembly (including speaker contact pogopins) and the microphone elastomeric support is mounted on the board.
4. Make sure that the environmental seal on the frame is intact (fig 2).
5. Place the board in the frame. Make sure that the vibrator and buzzer cables are placed correctly. To get the card in its right position it has to be pressed down as shown in (fig 3)
6. Connect the vibrator and the buzzer contacts (fig 4).
7. Mount the cable support (fig 5).
8. Mount the board / battery connector screws (fig 6). Check that the o-ring on the battery connector screws is intact (fig 7). Use torque screwdriver pre-set to 15Ncm.

NOTE! Make sure that the battery insulator (fig 8), on the back of the frame, is in right position.

9. Mount a new microphone elastomeric connector (fig 9).
10. Make sure that there is no dust in the front cover window. Mount the front cover.

NOTE! Mount the front cover with new frame screws (fig 10).
Use torque screwdriver pre-set to 55Ncm

11. Mount the SIM cardholder (fig 11) on the back of the frame. Insert it in the upper side first and snap it on place.
12. Apply a warranty seal over the lower left frame screw (fig 12).
13. Mount the antenna together with the external antenna cover (fig 13).
14. Mount the SIM card lid (fig 14) and the battery.

2.3 Figures

Fig 1

Fig 2

Fig 3

Fig 4

Fig 5

Fig 6

Fig 7

Fig 8

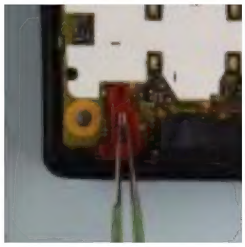
Fig 9

Fig 10

Fig 11

Fig 12

Fig 13

Fig 14

Fig 15

3 Replacement, Mechanical Parts

3.1 Front cover

3.1.1 Process tools

- Torque screwdriver, torx no.7 pre-set to 15 Ncm.
- Torque screwdriver, torx no.7 pre-set to 55 Ncm.

3.1.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-4.

1. Take a new front cover
2. Mount the side snap dome connectors (fig 1).
3. Mount the microphone and microphone boot (fig 2).
4. Remove the protection tape from the inside of the window

- Mount the phone as described in *2 Reassemble*, step 6-10.

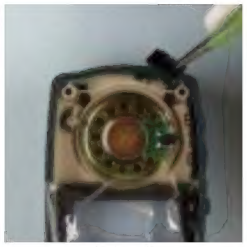

Fig 1

Fig 2

3.2 Loudspeaker

- The loudspeaker in the front cover can't be replaced.
- Follow the front cover replacement.

3.3 Microphone/Microphone boot

3.3.1 Process tools

- Tweezers

3.3.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-4.

1. Remove the microphone from the front cover with a pair of tweezers (fig 1).

NOTE! The microphone boot probably gets damaged when dismounting. So always use a new boot when mounting a new microphone.

2. Mount a new microphone and boot.

- Mount the phone as described in *2 Reassemble*, step 6-10

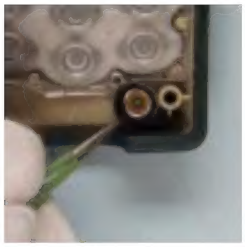

Fig 1

3.4 Microphone elastomeric connector/ Microphone elastomeric support.

3.4.1 Process tools

- Tweezers.

3.4.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-7.

1. Remove the microphone elastomeric support from the board (fig 1).
2. Make sure that the contact surface on the board not is dirty or oxidised. If necessary use alcohol and a brush to clean it.
3. Replace the elastomeric support and mount a new microphone elastomeric connector (fig 2).

- Mount the phone as described in *2 Reassemble*, step 1-10.

Fig 1

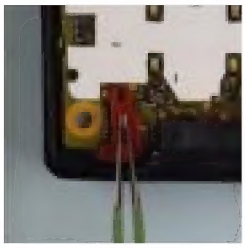

Fig 2

3.5 Buzzer/Buzzer boot

3.5.1 Process tools

- Tweezers.

3.5.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-7.

1. Remove the buzzer and the boot from the frame using a tweezers (fig 1).

NOTE! The buzzer boot probably gets damaged when dismounting. So always use a new boot when mounting a new buzzer.

NOTE! Make sure that the gore-tex filter in the bottom of the buzzer hole in the frame is intact.

2. Mount a new buzzer and new boot (fig 2)

- Mount the phone as described in *2 Reassemble*, step 1-10.

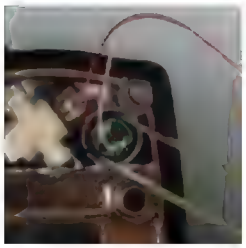

Fig 1

Fig 2

3.6 Vibrator/Vibrator boot

3.6.1 Process tools

- Tweezers

3.6.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-7.

1. Remove the vibrator and vibrator boot with a pair of tweezers (fig 1).
2. Take a new vibrator (and a new vibrator boot if needed), and mount it with the flat side up into the specific cavity in the frame. (fig 2 and3)

- Mount the phone as described in *2 Reassemble*, step 1-10

Fig 1

Fig 2

Fig 3

3.7 LCD light guide assembly/ Speaker contact pogo pins

3.7.1 Process tools

- Tweezers.

3.7.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-4.

NOTE! Do not touch the LCD with your hands, use gloves, and place a protection tape over the display.

1. Remove the old LCD assembly from the board. Be careful so you don't damage the board with the tweezers (fig 1).
2. Take a new LCD assembly. Make sure that the loudspeaker pogopins (fig 2) and a **new** LCD elastomeric (fig 3) is mounted.
3. Place the LCD assembly on the board (fig 4).
4. Mount the phone as described in *2 Reassemble*, step 6-10.

Fig 1

Fig 2

Fig 3

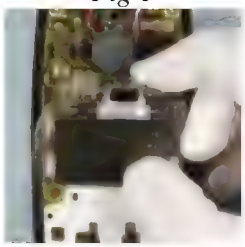

Fig 4

3.8 LCD elastomeric/LCD

3.8.1 Process tools

- Tweezers.

3.8.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-4.

NOTE! Do not touch the LCD with your hands, use gloves, and place a protection tape over the display.

1. Remove the LCD from the sub assembly (fig 1).
2. Use a pair of tweezers to remove the elastomeric connector (fig 2).
3. Mount a new elastomeric connector.
4. Replace the LCD on the LCD light guide.

- Mount the phone as described in *2 Reassemble*, step 6-10.

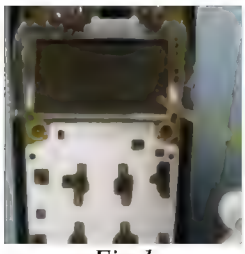

Fig 1

Fig 2

3.9 System connector

3.9.1 Process tools

- Tweezers.

3.9.2 Instructions

- Dismount the phone as described in *1 Disassembly*, step 1-7

1. Remove the system connector from the board (fig 1).
2. Mount a new system connector. Make sure that the connector not is turned the wrong way!

NOTE! Make sure that the boards contact surfaces are not dirty or oxidised. If necessary, use alcohol and a brush to clean it.

- Mount the phone as described in *2 Reassemble*, step 1-10.

Fig 1

3.10 SIM holder/SIM card lid

3.10.1 Process tools

- Tweezers.

3.10.2 Instructions

- No Disassembly or Reassemble.

1. Remove the battery.
2. Remove the SIM card lid (fig 1).
3. Use a pair of tweezers to remove the SIM holder (fig 2).
4. Mount a new SIM cardholder. Insert it in the upper side first and then snap it into the right position.
5. Place the SIM card lid.

Fig 1

Fig 2

3.11 Side snap dome connectors

3.11.1 Process tools

Tweezers

3.11.2 Instructions

NOTE! Do not touch the contacts with your hands, use gloves.

- Dismount the phone as described in *1 Disassembly*, step 1-4.

1. Remove the faulty side snap dome connectors from the front (fig 1).
2. Replace it with a new one.

- Mount the phone as described in *2 Reassemble*, step 6-10.

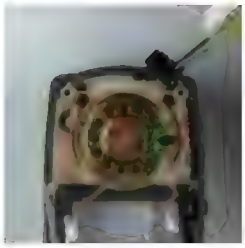

Fig 1

3.12 Speaker mode switch

- The speaker mode switch in the front cover can't be replaced.
- Follow the front cover replacement.

3.13 Antenna/External antenna cover

3.13.1 Instructions

- No Disassembly or Reassemble.

1. Remove the antenna by unscrewing it counter-clockwise (fig 1).
2. Take a new antenna and mount the external antenna cover.
3. Screw the antenna on place and make sure that the external antenna cover is properly fitting.

Fig 1

3.14 Warranty seal

3.14.1 Process tools

- Tweezers

3.14.2 Instructions

1. Remove the battery
2. Mount the warranty seal over the lower left frame screw (fig 1).

Fig 1

4 Revision History

Rev.	Date	Changes / Comments
E	1999-11-15	Convert from Framemaker to Word
F	2000-02-14	Torque 20 changed to torx 15. And some minor adjustments